import java.io.\*;

import java.util.\*;

class User {

private String name;

private String email;

public User(String name, String email) {

this.name = name;

this.email = email;

}

public String toString() {

return name + "," + email;

}

public static User fromString(String userData) {

String[] parts = userData.split(",");

return new User(parts[0], parts[1]);

}

}

class UserManager {

private List<User> users = new ArrayList<>();

public void addUser(String name, String email) {

users.add(new User(name, email));

}

public void saveUsersToFile(String filename) {

try (BufferedWriter writer = new BufferedWriter(new FileWriter(filename))) {

for (User user : users) {

writer.write(user.toString());

writer.newLine();

}

System.out.println("Users saved to " + filename);

} catch (IOException e) {

System.out.println("Error saving users: " + e.getMessage());

}

}

public void loadUsersFromFile(String filename) {

users.clear(); // Clear existing users before loading

try (BufferedReader reader = new BufferedReader(new FileReader(filename))) {

String line;

while ((line = reader.readLine()) != null) {

users.add(User.fromString(line));

}

System.out.println("Users loaded from " + filename);

} catch (IOException e) {

System.out.println("Error loading users: " + e.getMessage());

}

}

public void displayUsers() {

if (users.isEmpty()) {

System.out.println("No users found.");

} else {

for (User user : users) {

System.out.println(user);

}

}

}

}

public class UserIOExample {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

UserManager userManager = new UserManager();

while (true) {

System.out.println("\n1. Add User 2. Save to File 3. Load from File 4. Show Users 5. Exit");

System.out.print("Choose an option: ");

int choice = scanner.nextInt();

scanner.nextLine(); // Consume newline

if (choice == 5) break;

switch (choice) {

case 1:

System.out.print("Enter name: ");

String name = scanner.nextLine();

System.out.print("Enter email: ");

String email = scanner.nextLine();

userManager.addUser(name, email);

break;

case 2:

userManager.saveUsersToFile("users.txt");

break;

case 3:

userManager.loadUsersFromFile("users.txt");

break;

case 4:

userManager.displayUsers();

break;

default:

System.out.println("Invalid choice!");

}

}

scanner.close();

}

}